TROPICAL DISEASES BULLETIN

ISSUED UNDER THE DIRECTION OF THE HONORARY MANAGING COMMITTEE

VOL. 59 (Nos. 1–12)
JANUARY—DECEMBER, 1962

London:
BUREAU OF HYGIENE AND TROPICAL DISEASES,
Keppel Street, W.C.1.

COMMONWEALTH MYCOLOGICAL INSTITUTE
17 NOV 1965

HONORARY MANAGING COMMITTEE

APPOINTED BY THE SECRETARY FOR TECHNICAL CO-OPERATION

Chairman: J. M. Liston, *C.M.G.*, M.B., Ch.B., D.P.H., D.T.M. & H.
(*Chief Medical Officer, Department of Technical Co-operation*)

J. S. Bennett, *C.M.G.* (*representing the Colonial Office*)

Brigadier Sir John Boyd,
O.B.E., LL.D., M.D., F.R.C.P., D.P.H., D.T.M. & H., F.R.S.
(*representing the Royal Society*)

Sir George Godber, *K.C.B.*, D.M., F.R.C.P., D.P.H.
(*Chief Medical Officer, Ministry of Health*)

Sir Harold Himsworth, *K.C.B.*, M.D., F.R.C.P., F.R.S.
(*representing the Medical Research Council*)

Professor G. Macdonald, *C.M.G.*, M.D., F.R.C.P., D.P.H., D.T.M.
Sir George McRobert, *C.I.E.*, M.D., F.R.C.P., D.T.M. & H.
(*representing the Commonwealth Relations Office*)

Sir Philip Manson-Bahr, *C.M.G.*, *D.S.O.*, M.A., M.D., F.R.C.P., D.T.M. & H.

E. R. A. Merewether, *C.B.*, *C.B.E.*, M.D., F.R.C.P., F.R.S.E.

Professor Andrew B. Semple, *V.R.D.*, M.D., D.P.H.

J. B. Sidebotham, *C.M.G.*, M.A.

E. T. C. Spooner, M.A., M.D.

W. J. Smith (*of the Dept. of Technical Co-operation*)

Secretary: A. J. Somerton, *M.B.E.*, (*of the Dept. of Technical Co-operation*)

STAFF OF THE BUREAU

H. J. O'D. Burke-Gaffney, *O.B.E.*, *O.St.J.*, M.A., M.D., *Director*

F. I. C. Apted, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H., *Assistant Director*

Arthur H. Phipps, B.Com., *Secretary*

Joan E. D'Arcy Hart, *Assistant Secretary*

Mrs. Margaret Bridger
Peggy Carolan
Mrs. Denise Edwards
Mrs. Betty Lee
Frederick W. Norfolk
Carol Saunders
Brenda White

LIST OF ABSTRACTERS

A. R. D. Adams, M.D., F.R.C.P., D.T.M.
F. I. C. Apted, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M. & H.
Professor P. Armitage, M.A., Ph.D.
W. R. Aykroyd, *C.B.E.*, M.D., Sc.D.
J. R. Baker, B.Sc., Ph.D.
D. J. Bauer, Ph.D., M.B., B.Chir.
Professor C. P. Beattie, M.A., M.B., Ch.B., D.P.H.
Thomas Bedford, *O.B.E.*, D.Sc., Ph.D.
Sir Samuel Bedson, D.Sc., M.D., F.R.C.P., F.R.S.
S. Bell, M.D., D.T.M. & H.
Lieut.-Col. H. J. Bensted, *O.B.E.*, *M.C.*, M.R.C.P.
Professor D. S. Bertram, B.Sc., Ph.D.
Sir Alexander Biggam, *K.B.E.*, *C.B.*, M.D., F.R.C.P., D.T.M. & H.
R. G. Bird, M.B., B.S., D.T.M. & H.
J. T. Boyd, M.B., Ch.B., B.A.O., D.P.H.
Brigadier Sir John Boyd, *O.B.E.*, LL.D., M.D., F.R.C.P., D.P.H., D.T.M. & H., F.R.S.
Professor J. J. C. Buckley, D.Sc.
H. J. O'D. Burke-Gaffney, *O.B.E.*, *O.St.J.*, M.A., M.D.
S. R. M. Bushby, M.Sc., Ph.D.
J. R. Busvine, D.Sc., Ph.D.
H. G. Calwell, B.A., M.D., D.T.M. & H.
J. Cauchi, M.D., D.P.H.
D. P. Choyce, B.Sc., M.B., B.S., F.R.C.S., D.O.M.S.
P. A. Clearkin, *O.B.E.*, M.D.
M. J. Colbourne, M.B., Ch.B., D.P.H., D.T.M. & H.
A. C. E. Cole, M.A., M.D., F.R.C.P., D.T.M. & H.
Maj.-Gen. Sir Gordon Covell, *C.I.E.*, M.D., D.P.H., D.T.M. & H., I.M.S. (retd.)
Professor T. H. Davey, *O.B.E.*, M.D., D.T.M.
G. Davidson, B.Sc.
J. N. P. Davies, M.D.
Professor M. E. Delafield, *M.C.*, M.B., B.Ch., D.P.H.
Mrs. Joyce Doughty, B.Sc.
W. K. Dunscombe, M.D., D.P.H., D.T.M. & H.
T. P. Eddy, *C.B.E.*, M.A., M.R.C.S., L.R.C.P., D.P.H.
B. C. Fine, B.Sc.
Stewart Fletcher, B.Sc., M.B., Ch.B.
J. D. Fulton, M.A., B.Sc., Ph.D., M.B., Ch.B., D.T.M.
Professor P. C. C. Garnham, D.Sc., M.D., M.R.C.S., L.R.C.P., D.P.H.
Professor L. P. Garrod, M.D., F.R.C.P.
J. P. Glasgow, M.Sc., Ph.D.
L. G. Goodwin, B.Sc., M.B., B.S., B. Pharm.
F. Hawking, D.M., M.R.C.P., D.T.M.
R. S. F. Hennessey, *C.M.G.*, M.D., F.R.C.P.I., Dip.Bact., D.T.M. & H.
Edward Hindle, M.A., Sc.D., Ph.D., F.R.S.
C. A. Hoare, D.Sc., F.R.S.
J. R. Innes, M.D., D.T.M.
J. E. D. Keeling, B.Sc.
W. G. Kerr, M.B., Ch.B., F.R.C.S.Ed.
Professor W. E. Kershaw, *V.R.D.*, D.Sc., M.D., D.T.M. & H.
G. Lapage, M.Sc., M.A., M.D.
C. J. La Touche, M.Sc., L.A.H.
B. R. Laurence, B.Sc., Ph.D.
H. Lehmann, M.D., Sc.D., M.R.C.P., F.R.I.C.
C. S. Leithead, M.B., Ch.B., D. Obst., D.T.M. & H.
D. J. Lewis, M.A., Sc.D.
Professor R. Lovell, D.Sc., Ph.D., M.R.C.V.S., D.V.S.M.
May F. McCallum, B.Sc.
G. A. H. McClelland, B.A.
Professor G. Macdonald, *C.M.G.*, M.D., F.R.C.P., D.P.H., D.T.M.
W. W. Macdonald, B.Sc.
Professor B. G. Maegraith, M.A., B.Sc., D.Phil., M.B., B.S., F.R.C.P.
Sir Philip Manson-Bahr, *C.M.G.*, *D.S.O.*, M.A., M.D., F.R.C.P., D.T.M. & H.
A. Raymond Mills, Ph.D., M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H.
Ernest Muir, *C.M.G.*, *C.I.E.*, M.D., F.R.C.S.Ed.
Ian G. Murray, M.B., Ch.B., D.T.M. & H.
W. E. Ormerod, B.M., B.Ch.
T. E. Osmond, B.A., M.B.
Lieut.-Col. R. Passmore, M.A., D.M., I.M.S. (retd.)
A. B. Raper, B.Sc., M.D., M.R.C.P., D.T.M. & H.
A. McKie Reid, *M.C.*, *T.D.*, M.B., Ch.B., F.R.C.S., L.R.C.P.
J. A. Reid, D.Sc.
D. S. Ridley, M.D.
J. R. Rose, M.A., M.B., B.Chir., F.R.C.S.
Ruth Schwartz, B.Sc., Ph.D.
C. E. Gordon Smith, M.D.
Air Commodore W. P. Stamm, *C.B.E.*, M.B., B.S., F.R.C.P., D.C.P., D.T.M. & H.
J. M. Stark, M.B., Ch.B.
H. B. Stoner, B.Sc., M.D.
G. Stuart, *O.B.E.*, M.D., D.P.H.
M. G. R. Varma, B.Sc., Ph.D.
B. B. Waddy, D.M., D.P.H.
Lieut.-Col. J. H. Walters, M.D., F.R.C.P.
Bernard Weitz, D.Sc., M.R.C.V.S.
Charles Wilcocks, *C.M.G.*, M.D., F.R.C.P., D.T.M. & H.
Professor T. Wilson, *C.B.E.*, M.D., D.P.H., D.T.M. & H.
Professor A. W. Woodruff, Ph.D., M.D., F.R.C.P., D.T.M. & H.
C. A. Wright, B.Sc., Ph.D., A.R.C.S., D.I.C.

CONTENTS

SUMMARY OF RECENT ABSTRACTS (1961)

Cholera 1–4
Helminthiasis 745–760, 865–877
Leishmaniasis ... 509–513
Leprosy 1025–1033
Malaria ... 221–227, 317–332
Plague 633–636
Trypanosomiasis ... 405–416
Typhus Group of Fevers 949–954
Yellow Fever ... 113–114

SECTIONS

Amoebiasis and Intestinal Protozoal Infections ... 35, 149, 261, 353, 442, 554, 671, 778, 905, 977, 1061, 1160
Bartonellosis 28
Blackwater Fever 964
Book Reviews ... 108, 219, 401, 502, 628, 739, 858, 947, 1022, 1123, 1220
Cholera 34, 144, 256, 352, 552, 670, 904, 1060, 1515
Deficiency Diseases ... 65, 184, 291, 379, 476, 593, 702, 819, 922, 1000, 1092, 1193
Dengue and Allied Fevers 348, 547, 775, 899
Dermatology and Fungus Diseases ... 86, 199, 299, 389, 484, 608, 723, 832, 928, 1010, 1104, 1204
Entomology and Insecticides: General Zoology ... 92, 209, 304, 397, 493, 617, 730, 841, 939, 1015, 1111, 1210
Haematology ... 69, 188, 293, 382, 478, 598, 712, 825, 924, 1002, 1096, 1198
Helminthiasis ... 46, 164, 268, 365, 457, 566, 677, 794, 910, 985, 1074, 1167
Laboratory Procedures 215, 399, 499
Leishmaniasis ... 21, 131, 246, 343, 434, 539, 657, 770, 893, 967, 1049, 1142
Leprosy 39, 156, 264, 362, 451, 560, 674, 785, 908, 979, 1067, 1163
Malaria 5, 115, 228, 332, 416, 514, 637, 760, 878, 955, 1033, 1129
Miscellaneous Diseases ... 88, 205, 301, 392, 489, 613, 728, 837, 933, 1012, 1107, 1208
Miscellaneous Papers 104, 216, 312, 400, 499, 624, 735, 850, 943, 1019, 1122, 1218
Ophthalmology, Tropical ... 87, 203, 300, 391, 487, 609, 726, 834, 931, 1011, 1105, 1206
Parasitology: General 91, 207, 303, 396, 491, 615, 730, 839, 937, 1014, 1110, 1209
Plague 33, 143, 254, 350, 550, 669, 903, 976, 1058, 1154
Rabies ... 31, 140, 249, 349, 438, 548, 667, 775, 900, 974, 1055, 1147
Relapsing Fever and Other Spirochaetoses ... 38, 361, 448, 907, 1163
Reports and Surveys 104, 218, 314, 736, 851, 944, 1021

CONTENTS—*cont.*

SECTIONS—*cont.*

Rickettsial Diseases 22, 133, 247, 344, 435, 544, 662, 772, 895, 970, 1051, 1144
Sprue 188, 382, 477, 595, 709, 822, 923, 1002, 1096, 1198
Toxoplasmosis ... 79, 193, 297, 387, 482, 605, 720, 829, 927, 1009, 1102, 1204
Tropical Environmental Conditions ... 88, 204, 488, 610, 727, 836, 1106, 1207
Tropical Ulcer 204
Trypanosomiasis ... 15, 120, 238, 338, 426, 531, 649, 767, 890, 966, 1040, 1134
Typhus Group of Fevers, *see* Rickettsial Diseases
Venoms and Antivenoms ... 75, 191, 386, 481, 604, 717, 828, 926, 1008, 1099, 1202
Yaws and Other Treponematoses 449, 673, 1066
Yellow Fever 29, 139, 438, 546, 666, 1054, 1146
Index of Authors or Sources 1225
Index of Subjects 1249
Index of Countries 1291

ILLUSTRATIONS

Continuous-Flow Apparatus for *in vitro* Culture of *Schistosoma mansoni* 572
Ova of *Taenia saginata* (a) Gravid proglottids in strobila, (b) Gravid proglottid artificially detached 689

ERRATA

With reference to the paper by PATEL *et al.*, abstracted in this *Bulletin*, 1962, v. 59, 11, the authors have brought to the abstracter's notice that the method of making 8 and 16% DDT in white oil referred to in this abstract has been explained in a previous paper by BHATIA *et al.*, *Indian J. Malariology*, 1958, v. 12, 371-6.

The following should be added to the abstract of the paper by DUKE on "*Simulium aureosimile* Pomeroy, a Possible Vector of *Onchocerca volvulus*", this *Bulletin*, 1962, v. 59, 920:—"Dr. D. J. Lewis and Mr. R. W. Crosskey, who identified the *Simulium* as *S. aureosimile*, inform us that after further study they find it is not this species and cannot be identified until males and pupae are obtained."

In the abstract of the paper by BUDTZ-OLSEN & KIDSON in this *Bulletin*, 1962, v. 59, 713 the words "glucose-6-phosphate" in line 3 should read "glucose-6-phosphate dehydrogenase".

In connexion with the paper by QUAN and KARTMAN published in this *Bulletin*, 1962, v. 59, 903, the second author has pointed out a certain ambiguity in the wording of the first sentence. This should therefore read:—

"This survey of the susceptibility of wild rodents to experimental plague involved a study of 1,408 rodents of 7 species: throughout the tests with wild rodents, comparisons were made with 1,506 white mice, 238 white rats and 307 guineapigs."

With reference to the abstract of the paper "Growth of *Mycobacterium lepraemurium* Maintained in Cultures of Rat Fibroblasts" by GARBUTT *et al.*, this *Bulletin*, 1962, v. 59, 675, it has been pointed out that, owing to a misprint in the original article, the figure for the number of rat leprosy bacilli per ml. of the suspension was given as "20-40" in line 11 of the abstract, whereas it should have been "$2\text{-}4 \times 10^9$".